≥ INDUSTRIAL USES OF ELECTRICITY. ₩

MANY IMPORTANT LABORS NOW PERFORMED BY THE ELECTRIC CURRENT—EACH DAY BRINGS IT INTO NEW APPLICATION—HOW METALS ARE ELECTRICALLY REFINED—CHEMICALS WHICH ARE MADE BY ELECTRICITY—FATABLES AND DRINKABLES WHICH ARE BENEFITTED BY THE CURRENT—ELECTRIFIED BEER IS NOW A COMMODITY—ELETRIC TANNING, ELECTRIC TEMPERING, ELECTRIC COTTON PICKING—REFRIGERATING BY ELECTRICITY, OIL WELLS REJUVENATED BY ELECTRIC CURRENT—NEW PRODUCTS OF THE ELECTRIC FURNACE AND AN ENTIRELY NEW SUBSTANCE RECENTLY MADE BY THE CURRENT WHICH SCIENTISTS ARE INABLE NACE AND AN ENTIRELY NEW SUBSTANCE RECENTLY MADE BY THE CURRENT, WHICH SCIENTISTS ARE UNABLE

from silver to gold, electrolysis will be found a leading industry among the miners. The Siemens & Haiske cyanide process is in active operation in South Africa, and eight companies, in business to treat tailings alone, take care of 60,000 tons monthly. In fact, the old gine precipitation process seems to have given place to electrolytic methods all over the Rand. One central station operates four three-phase dynamos, with a combined capacity of 700 volts. This is steeped up by means of transformers to 16,000 volts, after which it is transmitted to the mines, 25 miles in several directions, from the station. At the mines it is steeped down again to the usable pressure of 250 to 500 volts. Electrolysis is used in the Broken Hill mine in Australia and in some of the mines of our own western country. NEW PRODUCTS OF THE ELEC-

ELECTRIA CURRENT. NEW RODUCTS OF THE ELECTROPHIC AND AN ENTIRELY NEW SUBSTANCE RECEIVED.

MADE BY THE CURRENT, WHICH SCIENTISTS ARE UNABLE

TO NAME.

It is the fashion nowadays to apply the triver of the large and the common ken and characteristic devery frequently the general public is led to believe in an electric more when does not exist at all. Nevertheless, when the industrial pursuits of the working, it is really wonderful to see how many of them are now carried on by electrical means. This, of course, the idea of finding out the manner of their working, it is really wonderful to see how many of them are now carried on by electrical means. This, of course, the idea of finding out the manner of their working, it is really wonderful to see how many of them are now carried on by electrical means. This, of course, the does not exist as of a motor prizoses as well. Its electrical general control of the current to the housand; electric can the prizoses as well. Its electrical general control of the current to t

A. SILVER BELT 31 FEET LINE

SILVER REFINING MACHINE, SHOWING BELT OF SILVER 31 FEET LONG.

has lately been invented for extracting caustic seda and giverine from soap lyes, which in a measure fulfills the desire to obtain something from nothing. Soap lyes have heretofore been left as a waste product, but now, by subjecting them to the action of a special kind of battery it is found that the current decomposes the caustic soda forming sodium-hydrate at the negative pole. The glycerine is set free, while the albuminoid and coloring matters are rendered insoluble and are easily

the Houor is distilled, forming a perfectly pure clear, glycerine. The causable work of the old method. Edison's method of extracting bused by the soap maker.

BLEACHING BY ELECTRICITY. The great demand for good bleaching solutions or powders has inspired the professional inventor to perfect electrolytic processes, which take the place to have been powdered as the control of the place to have been production, the latter making under certain conditions a glood bleach. The electrical preparation of chloride of calcium is carried out in the past year has witnessed a great than the base been possible to obtain hervefores. Under the old intended it, as an expensive her of the old method is and to bleach twice. This was not only expensive, but destructive to the fabrics. It is estimated, on the other hand, that the electrolytical processes is now used industrially in the processes in the control of the processes in the past year has witnessed a great than the base been possible to obtain hervefores. Under the old method, it is an expensive but destructive to the fabrics. It is estimated, on the other hand, that the electrolytically expensive, but destructive to the fabrics. It is estimated, on the other hand, that the electrolytical processes in a sea, but destructive to the fabrics. It is estimated, on the other hand, that the electrolytically expensive, but destructive to the fabrics. It is estimated, on the other hand, that the electrolytically expensive, but destructive to the fabrics. It is estimated, on the other hand, that the electrolytically expensive has the control of the processes in a sea, but destructive to the fabrics. It is estimated, on the other hand, that the electrolytically expensive has been possible to obtain the processes in t

many produced and securitally chemical assess, here reached the control piles in the control

are rendered insoluble and are easily removed by filtration. After this the soluble matter is senarated out and the liquor is distilled, forming a perfectly pure, clear, glycerine. The caustic sada is practically pure and can be used by the soap maker.

BLEACHING BY ELECTRICITY. The great demand for good bleaching solutions or powders has inspired the professional inventor to perfect electricity.

because the metal is ordinarily covered by a thin coating of shumina, which must be removed. This can be removed by electric treatment and the desired plating put on.

MAKING STEEL DIRECT FROM IRON ORE.

By means of an electric current it is now possible to make steel directly from iron ore. The Laval process of electric iron smelting, used in Sweden, renders this possible. The process is very simple. The pulverized ore is mixed with carbon and subjected to heat in a rotating cylinder. It is the brought into contact with an electric current through them, and a patent for one process of the kind has allowed to flow into a furnace, where it is converted into steel, or if this is not desired it is allowed to flow into a furnace, where it is converted into steel, or if this is not desired it is allowed to run into moids to await further treatment. This process is most economical, reducing the cost much below that of the old method. Edison's method of extracting from from the New Jersey bills is electric from the New Jersey bills is electric from the New Jersey bills is electric from the New Jersey bills is electrical from the New Jersey bills is electrically treated fish the free from the New Jersey bills is electrically treated f

Mexico to Vancouver and Boston to Honolulu. This firm every month set aside \$5,000 for table expenses alone, for wine flowed as freely as water at Saratoga. A better did not ask if there was a limit to the game. A sport who had sand and cash enough might bet \$20,000 on a single card. The bank's backers counted their millions as eastern gamesters counted their thousands. castern gamesters counted their thousands.

'In October, 1870, a big bluffer of a silver mine owner named Calkins came to Virginia City. He owned the richest silver mine in New Mexico at that time, and could have sold his property any day for a million and a half. He was known as a millionaire in good standing with the San Francisco banks and bankers, and his telegram was good with Mackay. Flood & O'Brien for \$590,000. The old fellow, with his cerduroy trousers lucked in his boots, and his greasy, dirty sombrero and his stogy ciyara, was a welcome guest anywhere in Nevada. He chatted an hour with Governor Nye, and, after getting two bottles of champagne inside of him, he shuntered into the faro room.

"Give me a stack of thousand-dol-lar fish (chips), said Calkins.
"Certainly, all you want, replied the suave Crittenden, a nephew of the Kentucky United States senator of

have had it in its mechanical application, such as the adaptation of the current to nlows and other machinery, and in its theoretical application, such as seed germination and stimulated piant growth. The first is practicual and settled, the second will have to be further developed.

ELECTRIC TANNING, ELECTRIC OTTON PICKING AND ELECTRICITY DI-HECT FROM COAL.

Electric tanning is now being practiced, and an electric cotton picker is on the market. There are several electric disinfecting processes and acety-line gas is made by the current, but at the bottom of the worn out Pennsyl-

HAMMER! HAMMER!! HAM-MER!!—We intend to keep hammer-ing away telling the people of the merits of Three Crown Baking Pow-der, Triple Flavoring Extracts and Pure Spices until they are a house-hold word in every home in the in-ter-mountain county. ter-mountain country.

RECT FROM COAL. Electric tanning is now being practiced, and an electric cotton picker is on the market. There are several electric disinfecting processes and acetylene gas is made by the current, but at the bottom of the worn out Pennsylvania oil wells, electricity has a really valuable use. Old oil wells finally become choked up with their own grease, which permeates the rocks and finally stops the flow. An electric cautery lowered into the wells melts this grease and starts the flow. Many old wells have been reconened in this way. In short, the recent industrial applications of electricity might be continued indefinitely. They include everything from the testing of car wheels to the lighting of country houses, from the medical uses of the X-rays to the sure protection from bank burgiars, from the use of the current for boat propulsion to its use as a spectacle-producer in theatres. But enough has been said to show that even if the ether theories do not enable us to communicate with other worlds, or if an electrical fiving

Just the thing for Summer wear. A pretty assortment, and Honest Values.

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> And all other Mining Chemicals.

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is the original and old refor family soap makin and general household uses. Beware of counter feits. The success of the article has induced un principled parties to imitate it. None genuine un tage. Panneylande. S.

less Pennisylvania Sall Manufacturing Co., Philadeipma, is stamped on the Ild. Ask your grocers for it and take ne other.







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FROM THE PUBLISHER

OF "WCURES"

Trains arrive and depart at Sait Lake City daily as follows:

(In Effect March 18, 187.)

ARRIVE.

From Chicago, Omaha, St. Louis, Kansas City, Denver, Park City and Ogden, and intermediate points

From San Francisco, Ogden and intermediate points

From Mercur, Tintic, Provo, Nephil, Sangere Valley and intermediate points

From Mercur, Tintic, Provo, Nephil, Sangere Valley and intermediate points

From Mercur, Tintic, Provo, Nephil, Sangere Valley and intermediate points

From Mercur, Tintic, Provo, Nephil, Sangere Valley and intermediate points

From Mercur, Tintic, Provo, Nephil, Sangere Valley and intermediate points

From Mercur, Tintic, Provo, Nephil, Sangere Valley and intermediate points

From Sangere Valley and intermediate points

From Chicago, Omaha, St. Louis, Sangere Valley, Ogden and Intermediate points

From Chicago, Omaha, St. Louis, Sangere Valley, and St. Louis and Intermediate points

From Mercur, Tintic, Provo, Nephil, Sangere Valley and intermediate points

From Chicago, Omaha, St. Louis, Sangere Valley, and St. Louis, Ogden, points

From Chicago, Omaha, St. Louis, Sangere Valley, and St. Louis, Sangere Valley, and St. Louis is identical with that between Chicago and Kansas City and St. Louis is identical with that between Chicago and Kansas City, referred to by Mr. McClure. It is believed to be better than that of any other western

Trains south of Juab run daily except Sunday south of Juab. Chicago and Kansas City, referred to by Mr. McClure. It is believed to be better than that of any other western railroad. Thousands of travelers are familiar with it and will gladly tes-

tify to its unvarying excellence.

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Current Time Table.

IN EFFECT JAN. 18, 1897. LEAVE SALT LAKE CITY.

LEAVE SALT LAKE CITY.

No. 1—For Bingham, Provo.
Grand Junction and all points
East
No. 4—For Provo, Grand Junction and all points East. 7:40 p.m.
No. 5—For Bingham, Mr. Pleasant, Manti, Richfield, Reiknap,
all intermediate points 12:30 p.m.
No. 5—For Ogden and intermediate points. 5:30 p.m.
Prove and all intermediate
points
No. 3—For Ogden and West. 11:45 p.m.
No. 3—For Ogden and West. 11:45 p.m.
No. 1—For Ogden and West. 11:25 p.m.
ARRIVE SALT LAKE CITY.

ARRIVE SALT LAKE CITY.

No. 1—From Bingham, Provo.
Grand Junction and the East. 12:15 p.m.
No. 5—From Provo. Grand
Junction and the East. 12:15 p.m.
No. 5—From Provo. Bingham,
Eureka, Belknap, Richfield,
Manti and all intermediate
points 5:25 p.m.

Manti and all intermediate points

No. 2-From Ogden and the West

No. 4-From Ogden and the 7:40 a.m.

No. 4-From Ogden and intermediate points

No. 7-From Eureka, Payson, Provo and all intermediate points

9:55 a.m. Only line running through Pullman Palace Sleeping Cars from Salt Lake City to San Francisco; Sait Lake City to Denver via Granti Junction, and Salt Lake City to Kansas City and Chicago via Colorade points.

Through tourist or family sleepers without change, to Kansas City, Chicago and Boston.

Free reclining chair cars, Salt Lake City.

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D. C. DODGE, F. A. WADLEIGH.
General Manager. Gen. Pas. Agent.



Trains leave and arrive Sult Lake City
as follows:
(In effect March 16, 1897.)

Leave.
"The Overland Limited," for Chicago, St. Paul, St. Louis, Omaha, Kansas City, Denver and Park City 1.00 a. m. "The Fast Mail," for Chicago, St. Louis, Omaha, Kansas City and Denver.
From three to 12 hours quicker to all above points than any other line.

Arrive.
The Overland Limited," from Chicago, St. Louis, Omaha, Kansas City, Denver and Park City Delver and Para 2:10 p. mt.

The Fast Mull, from Chicago,
St. Frul, St. Louis, Omaha,
Kansas City and Denver. 2:30 a.m.
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Two Through Trains Daily

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SALT LAKE & OGDEN RAILWAY CO

SALT LAKE & OGDEN RAILWAY CO
Time Table in Effect Nov. 1, 1896
Leave Arrive Leave Arrive
Sait Lake Farm. Lagoon & Sait Lake
ington & Farm.
Lagoon Ington
17:00 a.m. 17:02 a.m. 10:05 a.m. 11:05 a.m.
19:00 a.m. 10:00 a.m. 10:05 a.m. 11:05 a.m.
19:00 p.m. 4:09 p.m. 4:45 p.m. 5:55 p.m.
19:00 p.m. 4:09 p.m. 4:55 p.m. 7:25 p.m.
19:00 p.m. 6:00 p.m. 6:45 p.m. 7:25 p.m.
19:00 p.m. 10:00 a.m. 11:45
2:00 5:40 p. m.
Leave Farmington 9:65, 11:45 a. m.; 2:45,
4:45, 6:45 p. m.
Round Trib to Beck's, including bath,
18 cents. Children. 5: cents.

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